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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/725,972	11/29/2000	Takatoshi Tomooka	JP9-1999-0239US1 (8728-45)	8972

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EXAMINER

WILSON, YOLANDA L

ART UNIT	PAPER NUMBER
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2184

DATE MAILED: 12/02/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/725,972

Applicant(s)

TOMOOKA ET AL.

Examiner

Yolanda Wilson

Art Unit

2184

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-9 and 15-17 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,10,11,12,14,18,21,23 is/are rejected.
- 7) ☒ Claim(s) 3,13,19,20,22,24 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 3,13,19,20,22,24,25 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Allowable Subject Matter

2. Claims 5-9,15-17 are allowed.
3. The following is a statement of reasons for the indication of allowable subject matter: The primary reason for the allowance of claims 5-9 is the inclusion of the limitation an interface for connecting the host system and the display to each other, wherein the interface has a first interface for executing a transfer of a large capacity of data from the host system to the display and a second interface for executing a transfer of a small capacity of data from the display to the host system which is not zero but smaller than the quantity of data transferred by the first interface

The primary reason for the allowance of claims 15-17 is the inclusion of the following limitation: notifying means for notifying information indicating a transfer error with respect to the image data received by the receiving means to the host system through a second interface transferring a smaller quantity of image data than the first interface.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 10,11,21 are rejected under 35 U.S.C. 102(a) as being anticipated by Morimoto et al. (USPN 5880702A). As per claim 10, Morimoto et al. discloses a system bus for receiving image data from an application executed in column 6, lines 59-61.

Morimoto et al. discloses transfer means for dividing the image data received through the system bus so that each of the divided image data corresponds to a corresponding sub area obtained by parceling a display area of the display and for transferring each of the dividing image data in the form of packet after packetizing each of the divided image data as a unit in column 16, lines 29-40.

6. As per claim 11, Morimoto et al. discloses the system bus receives the image data in accordance with a window that is a region making sense collectively in an image space of which the application is conscious and the transfer means transfers the image data to the display so that each of the divided image data corresponds to the corresponding sub area belonging to the window in column 16, lines 29-40.

7. As per claim 21, Morimoto et al. discloses a variable-length packet data for transferring image data obtained by dividing an image space, of which the application is conscious, into a predetermined unit, the image data being packetized in column 16, lines 29-40. Morimoto et al. discloses a control line for indicating a valid packet period in the variable-length packet data in column 26, lines 56-57.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1,2,4,12,14,18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morimoto et al. (USPN 5880702A) in view of Shinoda (USPN 5680322A). As appears in claim 1, Morimoto et al. discloses managing image data by the host system belonging to a window in accordance with a sub-area obtained by dividing a display area of the display for the window that is a region making sense in an image space of which the application is conscious in column 2, lines 55-58, "a display control apparatus, and an information processing apparatus by which images can be displayed in an optimum state in accordance with the condition of the display device.

Morimoto et al. discloses transferring the image data managed by the host system as a packet unit to the display via the interface in column 16, lines 29-40.

Morimoto et al. discloses developing the image data transferred to the display via the interface in a panel memory of the display in column 16, lines 29-40.

Morimoto et al. fails to explicitly state grasping conditions of a transfer error in the transferred image data in a unit of the window and grasping by the host system the conditions grasped through the display.

Shinoda discloses this limitation in column 2, lines 51-61, "The receiving side corrects or detects errors in the received transmission bit string and determines whether the effect of the detected error upon the picture or image quality is larger than a predetermined criterion...a retransmission request for the data containing errors in the image coded but [bit] string is transmitted to the transmitting side. When a retransmission request is transmitted from the receiving side, the transmitting side retransmits the data according the retransmission request to the receiving side."

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to grasp conditions of a transfer error in the transferred image data in a unit of the window and have the host system grasp the conditions grasped through the display. A person of ordinary skill in the art would have been motivated to grasp conditions of a transfer error in the transferred image data in a unit of the window and have the host system grasp the conditions grasped through the display because transfer errors need to be detected when data is transferred over an interface from one device to another device and the host system needs to notified for recovery means.

10. As per claim 2, Morimoto et al. fails to explicitly state a re-transfer of the image data from the host system to the display through the interface is executed based on the conditions of the transfer error grasped by the host system.

Shinoda discloses this limitation in column 2, lines 51-61, "The receiving side corrects or detects errors in the received transmission bit string and determines whether the effect of the detected error upon the picture or image quality is larger than a

predetermined criterion... a retransmission request for the data containing errors in the image coded but [bit] string is transmitted to the transmitting side. When a retransmission request is transmitted from the receiving side, the transmitting side retransmits the data according the retransmission request to the receiving side.”

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a re-transfer of the image data from the host system to the display through the interface is executed based on the conditions of the transfer error grasped by the host system. A person of ordinary skill in the art would have been motivated to have a re-transfer of the image data from the host system to the display through the interface is executed based on the conditions of the transfer error grasped by the host system because re-transferring the data based on the error condition grasped by the host system is a way to stop the degradation if image quality. Shinoda discloses in column 2, lines 63-67 – column 3, lines 1-2.

11. As per claim 4, Morimoto et al. fails to explicitly state wherein the re-transfer of the image data is executed for a sub area in which the transfer error is grasped.

Shinoda discloses this limitation in column 2, lines 56-59, “a retransmission request for the data containing errors in the image coded but [bit] string is transmitted to the transmitting side.”

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the re-transfer of the image data is executed for a sub area in which the transfer error is grasped. A person of ordinary skill in the art would have been motivated to have the re-transfer of the image data is executed for a sub

area in which the transfer error is grasped because re-transferring the data based on the sub area on which the error condition occurred is a way to stop the degradation of image quality. Shinoda discloses in column 2, lines 63-67 – column 3, lines 1-2.

12. As per claim 12, Morimoto et al. discloses image data transfer means for transferring image data to the display after packetizing the image data into a unit so as to correspond to a predetermined area obtained by parceling a window that is a display area making sense collectively in an image space of which the application is conscious in column 16, lines 29-40.

Morimoto et al. fails to explicitly error condition receiving means for receiving error conditions with reference to the image data transferred to the display by the image data transfer means in the form of a predetermined collective unit from the display.

Shinoda discloses this limitation in column 8, lines 13-26.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have an error condition receiving means for receiving error conditions with reference to the image data transferred to the display by the image data transfer means in the form of a predetermined collective unit from the display. A person of ordinary skill in the art would have been motivated to have an error condition receiving means for receiving error conditions with reference to the image data transferred to the display by the image data transfer means in the form of a predetermined collective unit from the display because the error condition receiving means receives the error information for the errors that have been detected in the data transferred to the display.

13. As per claim 14, Morimoto et al. fails to explicitly state the image transfer means re-transfers the image data based on the error conditions received by the error condition receiving means.

Shinoda discloses this limitation in column 2, lines 51-61, "The receiving side corrects or detects errors in the received transmission bit string and determines whether the effect of the detected error upon the picture or image quality is larger than a predetermined criterion... a retransmission request for the data containing errors in the image coded but [bit] string is transmitted to the transmitting side. When a retransmission request is transmitted from the receiving side, the transmitting side retransmits the data according the retransmission request to the receiving side."

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the image transfer means re-transfers the image data based on the error conditions received by the error condition receiving means. A person of ordinary skill in the art would have been motivated to have the image transfer means re-transfers the image data based on the error conditions received by the error condition receiving means because re-transferring the data based on the error condition is a way to stop the degradation if image quality. Shinoda discloses in column 2, lines 63-67 – column 3, lines 1-2.

14. As per claim 18, Morimoto et al. discloses a panel for displaying an image in column 2, lines 55-58, "a display control apparatus, and an information processing apparatus by which images can be displayed in an optimum state in accordance with the condition of the display device.

Morimoto et al. discloses receiving means for receiving image data packetized from a host system which executes an application in column 16, lines 29-40.

Morimoto et al. discloses a panel memory for developing the image data received by the receiving means in column 16, lines 29-40.

Morimoto et al. fails to explicitly transfer error notifying means for recognizing a transfer error with respect to the image data received by the receiving means and for notifying information relating to the transfer error to the host system, the transfer error being recognized in a unit developed in the panel memory.

Shinoda discloses this limitation in column 2, lines 51-61, "The receiving side corrects or detects errors in the received transmission bit string and determines whether the effect of the detected error upon the picture or image quality is larger than a predetermined criterion... a retransmission request for the data containing errors in the image coded but [bit] string is transmitted to the transmitting side. When a retransmission request is transmitted from the receiving side, the transmitting side retransmits the data according the retransmission request to the receiving side."

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a transfer error notifying means for recognizing a transfer error with respect to the image data received by the receiving means and for notifying information relating to the transfer error to the host system, the transfer error being recognized in a unit developed in the panel memory. A person of ordinary skill in the art would have been motivated to have a transfer error notifying means for recognizing a transfer error with respect to the image data received by the receiving

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means and for notifying information relating to the transfer error to the host system, the transfer error being recognized in a unit developed in the panel memory because transfer errors need to be detected when data is transferred over an interface from one device to another device and the host system needs to be notified for recovery means.

15. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morimoto et al. (USPN 5880702A) in view of Maeda et al. (USPN 6014765A). As appears in claim 23, Morimoto et al. discloses a header portion including information indicating which window the packet belongs to, a body portion including image data belonging to the sub area for the display and information relating to an address of the sub area in column 16, lines 29-40.

Morimoto et al. fails to explicitly state a footer portion including information for confirming a transfer error.


Maeda et al. discloses this limitation in column 21, lines 51-55.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a footer portion including information for confirming a transfer error. A person of ordinary skill in the art would have been motivated to have a footer portion including information for confirming a transfer error because the information contained in the footer portion will help to determine if an error has occurred after transmission.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yolanda Wilson whose telephone number is (703) 305-3298. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


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